



SEQUENCE LISTING

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Heinrikson, Robert L.

<120> SUBSTRATES AND ASSAYS FOR BETA-SECRETASE ACTIVITY

<130> 29915/00281DUS

<140> 10/801,938

<141> 2004-03-16

<150> 09/908,943

<151> 2001-07-19

<150> 60/219,795

<151> 2000-07-19

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<170> PatentIn Ver. 2.0

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Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
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Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
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Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
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Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
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Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile
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Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
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Asn Leu Phe Ser Leu His Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
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Leu Pro Ala His Gly Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser
              20              25              30

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Gly Leu Gly Gly Ala Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp
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Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
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Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
      65              70              75              80

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Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
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Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
      100              105              110

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Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
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Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
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Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile
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Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
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1 5

<210> 37
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 37
Cys Gly Glu Arg Gly Phe Phe Tyr
1 5

<210> 38
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 38
Gly Val Leu Leu Ser Arg Lys
1 5

<210> 39
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 39
Val Gly Ser Gly Val Leu Leu
1 5

<210> 40
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 40
Val Gly Ser Gly Val
1 5

<210> 41
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (9)
<223> Xaa= cysteic acid

<400> 41
Lys Val Glu Ala Leu Tyr Leu Val Xaa Gly Glu Arg
1 5 10

<210> 42
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 42
Trp Arg Arg Val Glu Ala Leu Tyr Leu Val Glu Gly Glu Arg Lys
1 5 10 15

<210> 43
<211> 14

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 43
 Lys Val Glu Ala Asn Tyr Leu Val Glu Gly Glu Arg Lys Lys
 1 5 10

 <210> 44
 <211> 4
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 44
 Met Leu Leu Leu
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 <210> 45
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 45
 Asp Ala Ala His Pro Gly
 1 5

 <210> 46
 <211> 14
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 46
 Lys Val Glu Ala Asn Tyr Asp Val Glu Gly Glu Arg Lys Lys
 1 5 10

 <210> 47
 <211> 14
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

<400> 47
Lys Val Glu Ala Asn Leu Ala Val Glu Gly Glu Arg Lys Lys
1 5 10

<210> 48
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 48
Lys Val Glu Ala Leu Tyr Ala Val Glu Gly Glu Arg Lys Lys
1 5 10

<210> 49
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (1)
<223> Xaa = E, G, I, D, T, cysteic acid or S

<400> 49
Xaa Ala Asn Tyr Glu Val Glu Phe
1 5

<210> 50
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (2)
<223> Xaa= A, V, I, S, H, Y, T or F

<400> 50
Glu Xaa Asn Tyr Glu Val Glu Phe
1 5

<210> 51
<211> 8
<212> PRT
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<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (3)

<223> Xaa= N, L, K, S, G, T, D, A, Q, or E

<400> 51

Glu Ala Xaa Tyr Glu Val Glu Phe

1

5

<210> 52

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (4)

<223> Xaa= Y, L, M, Nle, F or H

<400> 52

Glu Ala Asn Xaa Glu Val Glu Phe

1

5

<210> 53

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (5)

<223> Xaa= E, A, D, M, Q, S or G

<400> 53

Glu Ala Asn Tyr Xaa Val Glu Phe

1

5

<210> 54

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (6)

<223> Xaa= V, A, N, T, L, F or S

<400> 54

Glu Ala Asn Tyr Glu Xaa Glu Phe
1 5

<210> 55

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (7)

<223> Xaa= E, G, F, H, cysteic acid or S

<400> 55

Glu Ala Asn Tyr Glu Val Xaa Phe
1 5

<210> 56

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (8)

<223> Xaa= F, W, G, A, H, P, G, N, S or E

<400> 56

Glu Ala Asn Tyr Glu Val Glu Xaa
1 5

<210> 57

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (1)

<223> Xaa= E, G, I, D, T, cyeteic acid or S

<400> 57

Xaa Val Leu Leu Ala Ala Gly Trp
1 5

<210> 58
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
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<223> Xaa= A, V, I, S, H, Y, T or F

<400> 58
Gly Xaa Leu Leu Ala Ala Gly Trp
1 5

<210> 59
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (3)
<223> Xaa= N, L, K, S, G, T, D, A, Q or E

<400> 59
Gly Val Xaa Leu Ala Ala Gly Trp
1 5

<210> 60
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (4)
<223> Xaa= Y, L, M, Nle, F or H

<400> 60
Gly Val Leu Xaa Ala Ala Gly Trp
1 5

<210> 61
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (5)

<223> Xaa= E, A, D, M, Q, S or G

<400> 61

Gly Val Leu Leu Xaa Ala Gly Trp
1 5

<210> 62

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (6)

<223> Xaa= V, A, N, T, L, F or S

<400> 62

Gly Val Leu Leu Ala Xaa Gly Trp
1 5

<210> 63

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (7)

<223> Xaa= E, G, F, H, cysteic acid or S

<400> 63

Gly Val Leu Leu Ala Ala Xaa Trp
1 5

<210> 64

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (8)

<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 64

Gly Val Leu Leu Ala Ala Gly Xaa
1 5

<210> 65

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (1)

<223> Xaa= E, G, I, D, T, cysteic acid or S

<400> 65

Xaa Ile Lys Met Asp Asn Phe Gly
1 5

<210> 66

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (2)

<223> Xaa= A, V, I, S, H, Y, T or F

<400> 66

Ile Xaa Lys Met Asp Asn Phe Gly
1 5

<210> 67

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (3)

<223> Xaa= N, L, K, S, G, T, D, A, Q or E.

<400> 67

Ile Ile Xaa Met Asp Asn Phe Gly
1 5

<210> 68
<211> 8
<212> PRT
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<220>
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peptide sequence

<220>
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<222> (4)
<223> Xaa= Y, L, M, Nle, F or H

<400> 68
Ile Ile Lys Xaa Asp Asn Phe Gly
1 5

<210> 69
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (5)
<223> Xaa= E, A, D, M, Q, S or G

<400> 69
Ile Ile Lys Met Xaa Asn Phe Gly
1 5

<210> 70
<211> 8
<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (6)
<223> Xaa= V, A, N,T, L, F or S

<400> 70
Ile Ile Lys Met Asp Xaa Phe Gly
1 5

<210> 71
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (7)
<223> Xaa= E, G, F, H, cysteic acid or S

<400> 71
Ile Ile Lys Met Asp Asn Xaa Gly
1 5

<210> 72
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
<221> SITE
<222> (8)
<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 72
Ile Ile Lys Met Asp Asn Phe Xaa
1 5

<210> 73
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<223> Xaa= E, G, I, D, T, cysteic acid or S

<400> 73
Xaa Ser Ser Asn Leu Glu Met Thr His Ala
1 5 10

<210> 74
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (2)
 <223> Xaa= A, V, I, S, H, Y, T or F

 <400> 74
 Asp Xaa Ser Asn Leu Glu Met Thr His Ala
 1 5 10

 <210> 75
 <211> 10
 <212> PRT
 <213> Artificial Sequence

 <220>
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 peptide sequence

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 <223> Xaa= N, L, K, S, G, T, D, A, Q or E

 <400> 75
 Asp Ser Xaa Asn Leu Glu Met Thr His Ala
 1 5 10

 <210> 76
 <211> 8
 <212> PRT
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 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <220>
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 <222> (4)
 <223> Xaa= Y, L, M, Nle, F or H

 <400> 76
 Asp Ser Ser Xaa Met Thr His Ala
 1 5

 <210> 77
 <211> 10
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <220>
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 <222> (7)
 <223> Xaa= E, A, D, M, Q, S or G

 <400> 77
 Asp Ser Ser Asn Leu Glu Xaa Thr His Ala
 1 5 10

<210> 78
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (8)
<223> Xaa= V, A, N, T, L, F or S

<400> 78
Asp Ser Ser Asn Leu Glu Met Xaa His Ala
1 5 10

<210> 79
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (8)
<223> Xaa= E, G, F, H, cysteic acid or S

<400> 79
Asp Ser Asn Leu Glu Met Thr Xaa Ala
1 5

<210> 80
<211> 9
<212> PRT
<213> Artificial Sequence

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peptide sequence

<220>
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<222> (9)
<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 80
Asp Ser Asn Leu Glu Met Thr His Xaa
1 5

<210> 81
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
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<222> (1)
<223> Xaa= E, G, I, D, T, cysteic acid or S

<220>
<221> SITE
<222> (7)
<223> Xaa= cysteic acid

<400> 81
Xaa His Gly Phe Gln Leu Xaa His
1 5

<210> 82
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
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<222> (2)
<223> Xaa= A, V, I, S, H, Y, T or F

<220>
<221> SITE
<222> (7)
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<400> 82
Thr Xaa Gly Phe Gln Leu Xaa His
1 5

<210> 83
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
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<223> Xaa= N, L, K, S, G, T, D, A, Q or E

<220>
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<222> (7)
<223> Xaa= cysteic acid

<400> 83

Thr His Xaa Phe Gln Leu Xaa His
1 5

<210> 84
<211> 8
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<213> Artificial Sequence

<220>
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peptide sequence

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<223> Xaa= Y, L, M, Nle, F or H

<220>
<221> SITE
<222> (7)
<223> Xaa= cysteic acid

<400> 84
Thr His Gly Xaa Gln Leu Xaa His
1 5

<210> 85
<211> 8
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<213> Artificial Sequence

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peptide sequence

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<222> (5)
<223> Xaa= E, A, D, M, Q, S or G

<220>
<221> SITE
<222> (7)
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<400> 85
Thr His Gly Phe Xaa Leu Xaa His
1 5

<210> 86
<211> 8
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<213> Artificial Sequence

<220>
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peptide sequence

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<222> (6)
 <223> Xaa= V, A, N, T, L, F or S

 <220>
 <221> SITE
 <222> (7)
 <223> Xaa= cysteic acid

 <400> 86
 Thr His Gly Phe Gln Xaa Xaa His
 1 5

 <210> 87
 <211> 8
 <212> PRT
 <213> Artificial Sequence

 <220>
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 peptide sequence

 <220>
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 <222> (7)
 <223> Xaa= E, G, F, H, cysteic acid or S

 <400> 87
 Thr His Gly Phe Gln Leu Xaa His
 1 5

 <210> 88
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 <212> PRT
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 peptide sequence

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 <223> Xaa= cysteic acid

 <220>
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 <222> (8)
 <223> Xaa= F, W, G, A, H, P, G, N or S

 <400> 88
 Thr His Gly Phe Gln Leu Xaa Xaa
 1 5

 <210> 89
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 <212> PRT
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peptide sequence

<220>
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<223> Xaa= E, G, I, D, T, cysteic acid or S

<400> 89
Xaa Tyr Thr His Ser Phe Ser Pro
1 5

<210> 90
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<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
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<223> Xaa= cysteic acid

<220>
<221> SITE
<222> (2)
<223> Xaa= A, V, I, S, H, Y, T or F

<400> 90
Xaa Xaa Thr His Ser Phe Ser Pro
1 5

<210> 91
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
<221> SITE
<222> (1)
<223> Xaa= cysteic acid

<220>
<221> SITE
<222> (3)
<223> Xaa= N, L, K, S, G, T, D, A, Q or E

<400> 91
Xaa Tyr Xaa His Ser Phe Ser Pro
1 5

<210> 92
<211> 8
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (1)

<223> Xaa= cysteic acid

<220>

<221> SITE

<222> (4)

<223> Xaa= Y, L, M, Nle, F or H

<400> 92

Xaa Tyr Thr Xaa Ser Phe Ser Pro
1 5

<210> 93

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

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<222> (1)

<223> Xaa= cysteic acid

<220>

<221> SITE

<222> (5)

<223> Xaa= E, A, D, M, Q, S or G

<400> 93

Xaa Tyr Thr His Xaa Phe Ser Pro
1 5

<210> 94

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

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<222> (1)

<223> Xaa= cysteic acid

<220>

<221> SITE

<222> (6)

<223> Xaa= V, A, N, T, L, F or S

<400> 94
Xaa Tyr Thr His Ser Xaa Ser Pro
1 5

<210> 95
<211> 8
<212> PRT
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peptide sequence

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<223> Xaa= cysteic acid

<220>
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<223> Xaa=E, G, F, H, cysteic acid or S

<400> 95
Xaa Tyr Thr His Ser Phe Xaa Pro
1 5

<210> 96
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<213> Artificial Sequence

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peptide sequence

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<223> Xaa=cysteic acid

<220>
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<222> (8)
<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 96
Xaa Tyr Thr His Ser Phe Ser Xaa
1 5

<210> 97
<211> 8
<212> PRT
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<220>
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peptide sequence

<220>

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 <223> Xaa= E, G, I, D, T, cysteic acid or S

 <220>
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 <222> (7)
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 <222> (4)
 <223> Xaa= any amino acid

 <400> 97
 Xaa Thr Asp Xaa Gly Ser Xaa Gly
 1 5

 <210> 98
 <211> 8
 <212> PRT
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 <220>
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 peptide sequence

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 <223> Xaa=A, V, I, S, H, Y, T or F

 <220>
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 <222> (4)
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 <221> SITE
 <222> (7)
 <223> Xaa= any amino acid

 <400> 98
 Ser Xaa Asp Xaa Gly Ser Xaa Gly
 1 5

 <210> 99
 <211> 8
 <212> PRT
 <213> Artificial Sequence

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 peptide sequence

 <220>
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 <223> Xaa= N, L, K, S, G, T, D, A, Q or E

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<221> SITE
 <222> (4)
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 <223> Xaa= any amino acid

 <400> 99
 Ser Thr Xaa Xaa Gly Ser Xaa Gly
 1 5

 <210> 100
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 peptide sequence

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 <223> Xaa= Y, L, M, Nle, F or H

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 <400> 100
 Ser Thr Asp Xaa Gly Ser Xaa Gly
 1 5

 <210> 101
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 peptide sequence

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 <223> Xaa= any amino acid

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 <222> (5)
 <223> Xaa= E, A, D, M, Q, S or G

 <400> 101

Ser Thr Asp Xaa Xaa Ser Xaa Gly
1 5

<210> 102
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (4)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (7)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (6)
<223> Xaa= V, A, N, T, L, F or S

<400> 102
Ser Thr Asp Xaa Gly Xaa Xaa Gly
1 5

<210> 103
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<222> (4)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (7)
<223> Xaa= E, G, F, H, cysteic acid or S

<400> 103
Ser Thr Asp Xaa Gly Ser Xaa Gly
1 5

<210> 104
<211> 8
<212> PRT
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<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (4)

<223> Xaa= any amino acid

<220>

<221> SITE

<222> (7)

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<222> (8)

<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 104

Ser Thr Asp Xaa Gly Ser Xaa Xaa

1

5

<210> 105

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (1)

<223> Xaa= E, G, I, D, T, cysteic acid or S

<220>

<221> SITE

<222> (4)..(7)

<223> Xaa= any amino acid

<400> 105

Xaa Phe Ala Xaa Xaa Xaa Xaa Asn

1

5

<210> 106

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (1)

<223> Xaa= any amino acid

<220>

<221> SITE
<222> (2)
<223> Xaa= A, V, I, S, H, Y, T or F

<220>
<221> SITE
<222> (4)..(7)
<223> Xaa= any amino acid

<400> 106
Xaa Xaa Ala Xaa Xaa Xaa Xaa Asn
1 5

<210> 107
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
<221> SITE
<222> (1)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (3)
<223> Xaa= N, L, K, S, G, T, D, A, Q or E

<220>
<221> SITE
<222> (4)..(7)
<223> Xaa= any amino acid

<400> 107
Xaa Phe Xaa Xaa Xaa Xaa Xaa Asn
1 5

<210> 108
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
<221> SITE
<222> (1)
<223> Xaa= any amino acid

<220>
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<222> (4)
<223> Xaa= Y, L, M, Nle, F or H

<220>

<221> SITE
 <222> (5)..(7)
 <223> Xaa= any amino acid

 <400> 108
 Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
 1 5

 <210> 109
 <211> 8
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <220>
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 <223> Xaa= any amino acid

 <220>
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 <222> (4)
 <223> Xaa = any amino acid

 <220>
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 <222> (5)
 <223> Xaa= E, A, D, M, Q, S or G

 <220>
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 <222> (6)..(7)
 <223> Xaa= any amino acid

 <400> 109
 Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
 1 5

 <210> 110
 <211> 8
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <220>
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 <223> Xaa= any amino acid

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 <222> (4)..(5)
 <223> Xaa= any amino acid

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<223> Xaa= V, A, N, T, L, F or S

<220>
<221> SITE
<222> (7)
<223> Xaa= any amino acid

<400> 110
Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
1 5

<210> 111
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<223> Xaa= any amino acid

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<223> Xaa= any amino acid

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<222> (7)
<223> Xaa= E, G, F, H, cysteic acid or S

<400> 111
Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
1 5

<210> 112
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
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<223> Xaa= any amino acid

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<223> Xaa= any amino acid

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<221> SITE
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 <223> Xaa= F, W, G, A, H, P, G, N or S

 <400> 112
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 1 5

 <210> 113
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 113
 Glu Val Asn Leu Asp Ala Glu Phe Arg
 1 5

 <210> 114
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 114
 Asp Tyr Lys Asp Asp Asp Lys
 1 5

 <210> 115
 <211> 17
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

 <400> 115
 Ala Cys Gly Ser Glu Ser Met Asp Ser Gly Ile Ser Leu Asp Asn Lys
 1 5 10 15
 Trp

 <210> 116
 <211> 17
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

<400> 116
Trp Lys Lys Gly Ala Ile Ile Gly Leu Met Val Gly Gly Val Val Lys
1 5 10 15

Lys

<210> 117
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 117
Ala Asn Leu Ser Thr Phe Ala Gln Pro Arg Arg
1 5 10

<210> 118
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 118
Tyr Arg Tyr Gln Ser His Asp Tyr Ala Phe Ser Ser Val Glu Lys Leu
1 5 10 15

Leu His Leu Gly Gly Cys
20

<210> 119
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 119
Tyr Arg Tyr Gln Ser His Asp Tyr Ala Phe Ser Ser Val Glu Lys Leu
1 5 10 15

Leu His Leu Gly Gly Cys
20

<210> 120
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic

peptide sequence

<400> 120

Lys Thr Ile Thr Leu Glu Val Glu Pro Ser
1 5 10

<210> 121

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> SITE

<222> (9)

<223> Xaa= cysteic acid

<400> 121

Val Glu Ala Leu Tyr Leu Val Cys Xaa Gly Glu Arg
1 5 10

<210> 122

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 122

Val Glu Ala Leu Tyr Leu Val Glu Gly Glu Arg
1 5 10

<210> 123

<211> 363

<212> PRT

<213> Homo sapiens

<220>

<223> galactosyltransferase

<400> 123

Met Ala Ser Lys Ser Trp Leu Asn Phe Leu Thr Phe Leu Cys Gly Ser
1 5 10 15

Ala Ile Gly Phe Leu Leu Cys Ser Gln Leu Phe Ser Ile Leu Leu Gly
20 25 30

Glu Lys Val Asp Thr Gln Pro Asn Val Leu His Asn Asp Pro His Ala
35 40 45

Arg His Ser Asp Asp Asn Gly Gln Asn His Leu Glu Gly Gln Met Asn
50 55 60

Phe Asn Ala Asp Ser Ser Gln His Lys Asp Glu Asn Thr Asp Ile Ala
65 70 75 80

Glu Asn Leu Tyr Gln Lys Val Arg Ile Leu Cys Trp Val Met Thr Gly
 85 90 95
 Pro Gln Asn Leu Glu Lys Lys Ala Lys His Val Lys Ala Thr Trp Ala
 100 105 110
 Gln Arg Cys Asn Lys Val Leu Phe Met Ser Ser Glu Glu Asn Lys Asp
 115 120 125
 Phe Pro Ala Val Gly Leu Lys Thr Lys Glu Gly Arg Asp Gln Leu Tyr
 130 135 140
 Trp Lys Thr Ile Lys Ala Phe Gln Tyr Val His Glu His Tyr Leu Glu
 145 150 155 160
 Asp Ala Asp Trp Phe Leu Lys Ala Asp Asp Asp Thr Tyr Val Ile Leu
 165 170 175
 Asp Asn Leu Arg Trp Leu Leu Ser Lys Tyr Asp Pro Glu Glu Pro Ile
 180 185 190
 Tyr Phe Gly Arg Arg Phe Lys Pro Tyr Val Lys Gln Gly Tyr Met Ser
 195 200 205
 Gly Gly Ala Gly Tyr Val Leu Ser Lys Glu Ala Leu Lys Arg Phe Val
 210 215 220
 Asp Ala Phe Lys Thr Asp Lys Cys Thr His Ser Ser Ser Ile Glu Asp
 225 230 235 240
 Leu Ala Leu Gly Arg Cys Met Glu Ile Met Asn Val Glu Ala Gly Asp
 245 250 255
 Ser Arg Asp Thr Ile Gly Lys Glu Thr Phe His Pro Phe Val Pro Glu
 260 265 270
 His His Leu Ile Lys Gly Tyr Leu Pro Arg Thr Phe Trp Tyr Trp Asn
 275 280 285
 Tyr Asn Tyr Tyr Pro Pro Val Glu Gly Pro Gly Cys Cys Ser Asp Leu
 290 295 300
 Ala Val Ser Phe His Tyr Val Asp Ser Thr Thr Met Tyr Glu Leu Glu
 305 310 315 320
 Tyr Leu Val Tyr His Leu Arg Pro Tyr Gly Tyr Leu Tyr Arg Tyr Gln
 325 330 335
 Pro Thr Leu Pro Glu Arg Ile Leu Lys Glu Ile Ser Gln Ala Asn Lys
 340 345 350
 Asn Glu Asp Thr Lys Val Lys Leu Gly Asn Pro
 355 360

<210> 124

<211> 405

<212> PRT

<213> Homo sapiens

<220>

<223> Homo sapiens sialyltransferase 1

<400> 124

Ile His Thr Asn Leu Lys Lys Lys Phe Ser Cys Cys Val Leu Val Phe
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Leu Leu Phe Ala Val Ile Cys Val Trp Lys Glu Lys Lys Lys Gly Ser
20 25 30
Tyr Tyr Asp Ser Phe Lys Leu Gln Thr Lys Glu Phe Gln Val Leu Lys
35 40 45
Ser Leu Gly Lys Leu Ala Met Gly Ser Asp Ser Gln Ser Val Ser Ser
50 55 60
Ser Ser Thr Gln Asp Pro His Arg Gly Arg Gln Thr Leu Gly Ser Leu
65 70 75 80
Arg Gly Leu Ala Lys Ala Lys Pro Glu Ala Ser Phe Gln Val Trp Asn
85 90 95
Lys Asp Ser Ser Ser Lys Asn Leu Ile Pro Arg Leu Gln Lys Ile Trp
100 105 110
Lys Asn Tyr Leu Ser Met Asn Lys Tyr Lys Val Ser Tyr Lys Gly Pro
115 120 125
Gly Pro Gly Ile Lys Phe Ser Ala Glu Ala Leu Arg Cys His Leu Arg
130 135 140
Asp His Val Asn Val Ser Met Val Glu Val Thr Asp Phe Pro Phe Asn
145 150 155 160
Thr Ser Glu Trp Glu Gly Tyr Leu Pro Lys Glu Ser Ile Arg Thr Lys
165 170 175
Ala Gly Pro Trp Gly Arg Cys Ala Val Val Ser Ser Ala Gly Ser Leu
180 185 190
Lys Ser Ser Gln Leu Gly Arg Glu Ile Asp Asp His Asp Ala Val Leu
195 200 205
Arg Phe Asn Gly Ala Pro Thr Ala Asn Phe Gln Gln Asp Val Gly Thr
210 215 220
Lys Thr Thr Ile Arg Leu Met Asn Ser Gln Leu Val Thr Thr Glu Lys
225 230 235 240
Arg Phe Leu Lys Asp Ser Leu Tyr Asn Glu Gly Ile Leu Ile Val Trp
245 250 255
Asp Pro Ser Val Tyr His Ser Asp Ile Pro Lys Trp Tyr Gln Asn Pro
260 265 270
Asp Tyr Asn Phe Phe Asn Asn Tyr Lys Thr Tyr Arg Lys Leu His Pro
275 280 285
Asn Gln Pro Phe Tyr Ile Leu Lys Pro Gln Met Pro Trp Glu Leu Trp
290 295 300
Asp Ile Leu Gln Glu Ile Ser Pro Glu Glu Ile Gln Pro Asn Pro Pro
305 310 315 320
Ser Ser Gly Met Leu Gly Ile Ile Ile Met Met Thr Leu Cys Asp Gln
325 330 335

Val Asp Ile Tyr Glu Phe Leu Pro Ser Lys Arg Lys Thr Asp Val Cys
340 345 350

Tyr Tyr Tyr Gln Lys Phe Phe Asp Ser Ala Cys Thr Met Gly Ala Tyr
355 360 365

His Pro Leu Leu Tyr Glu Lys Asn Leu Val Lys His Leu Asn Gln Gly
370 375 380

Thr Asp Glu Asp Ile Tyr Leu Leu Gly Lys Ala Thr Leu Pro Gly Phe
385 390 395 400

Arg Thr Ile His Cys
405

<210> 125
<211> 518
<212> PRT
<213> Homo sapiens

<220>
<223> Homo sapiens aspartyl protease 1

<400> 125
Met Gly Ala Leu Ala Arg Ala Leu Leu Leu Pro Leu Leu Ala Gln Trp
1 5 10 15

Leu Leu Arg Ala Ala Pro Glu Leu Ala Pro Ala Pro Phe Thr Leu Pro
20 25 30

Leu Arg Val Ala Ala Ala Thr Asn Arg Val Val Ala Pro Thr Pro Gly
35 40 45

Pro Gly Thr Pro Ala Glu Arg His Ala Asp Gly Leu Ala Leu Ala Leu
50 55 60

Glu Pro Ala Leu Ala Ser Pro Ala Gly Ala Ala Asn Phe Leu Ala Met
65 70 75 80

Val Asp Asn Leu Gln Gly Asp Ser Gly Arg Gly Tyr Tyr Leu Glu Met
85 90 95

Leu Ile Gly Thr Pro Pro Gln Lys Leu Gln Ile Leu Val Asp Thr Gly
100 105 110

Ser Ser Asn Phe Ala Val Ala Gly Thr Pro His Ser Tyr Ile Asp Thr
115 120 125

Tyr Phe Asp Thr Glu Arg Ser Ser Thr Tyr Arg Ser Lys Gly Phe Asp
130 135 140

Val Thr Val Lys Tyr Thr Gln Gly Ser Trp Thr Gly Phe Val Gly Glu
145 150 155 160

Asp Leu Val Thr Ile Pro Lys Gly Phe Asn Thr Ser Phe Leu Val Asn
165 170 175

Ile Ala Thr Ile Phe Glu Ser Glu Asn Phe Phe Leu Pro Gly Ile Lys
180 185 190

Trp Asn Gly Ile Leu Gly Leu Ala Tyr Ala Thr Leu Ala Lys Pro Ser
195 200 205

Ser Ser Leu Glu Thr Phe Phe Asp Ser Leu Val Thr Gln Ala Asn Ile
 210 215 220
 Pro Asn Val Phe Ser Met Gln Met Cys Gly Ala Gly Leu Pro Val Ala
 225 230 235 240
 Gly Ser Gly Thr Asn Gly Gly Ser Leu Val Leu Gly Gly Ile Glu Pro
 245 250 255
 Ser Leu Tyr Lys Gly Asp Ile Trp Tyr Thr Pro Ile Lys Glu Glu Trp
 260 265 270
 Tyr Tyr Gln Ile Glu Ile Leu Lys Leu Glu Ile Gly Gly Gln Ser Leu
 275 280 285
 Asn Leu Asp Cys Arg Glu Tyr Asn Ala Asp Lys Ala Ile Val Asp Ser
 290 295 300
 Gly Thr Thr Leu Leu Arg Leu Pro Gln Lys Val Phe Asp Ala Val Val
 305 310 315 320
 Glu Ala Val Ala Arg Ala Ser Leu Ile Pro Glu Phe Ser Asp Gly Phe
 325 330 335
 Trp Thr Gly Ser Gln Leu Ala Cys Trp Thr Asn Ser Glu Thr Pro Trp
 340 345 350
 Ser Tyr Phe Pro Lys Ile Ser Ile Tyr Leu Arg Asp Glu Asn Ser Ser
 355 360 365
 Arg Ser Phe Arg Ile Thr Ile Leu Pro Gln Leu Tyr Ile Gln Pro Met
 370 375 380
 Met Gly Ala Gly Leu Asn Tyr Glu Cys Tyr Arg Phe Gly Ile Ser Pro
 385 390 395 400
 Ser Thr Asn Ala Leu Val Ile Gly Ala Thr Val Met Glu Gly Phe Tyr
 405 410 415
 Val Ile Phe Asp Arg Ala Gln Lys Arg Val Gly Phe Ala Ala Ser Pro
 420 425 430
 Cys Ala Glu Ile Ala Gly Ala Ala Val Ser Glu Ile Ser Gly Pro Phe
 435 440 445
 Ser Thr Glu Asp Val Ala Ser Asn Cys Val Pro Ala Gln Ser Leu Ser
 450 455 460
 Glu Pro Ile Leu Trp Ile Val Ser Tyr Ala Leu Met Ser Val Cys Gly
 465 470 475 480
 Ala Ile Leu Leu Val Leu Ile Val Leu Leu Leu Leu Pro Phe Arg Cys
 485 490 495
 Gln Arg Arg Pro Arg Asp Pro Glu Val Val Asn Asp Glu Ser Ser Leu
 500 505 510
 Val Arg His Arg Trp Lys
 515

<210> 126

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<220>
<223> Homo sapiens syntaxin 6
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Met Ser Met Glu Asp Pro Phe Phe Val Val Lys Gly Glu Val Gln Lys
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Glu Leu Arg Asn Asn Leu Arg Ser Ile Glu Trp Asp Leu Glu Asp Leu
50 55 60

Gln Val Val Arg Asp Met Lys Asp Gln Met Ser Thr Ser Ser Val Gln
100 105 110

Arg Glu Leu Gln Arg Ala Asn Ser His Phe Ile Glu Glu Gln Gln Ala
145 150 155 160

Glu Leu Glu Glu Gln Ala Val Met Leu Glu Asp Phe Ser His Glu Leu
195 200 205

Leu Phe Ala Val Leu Leu Val Val Leu Ile Leu Phe Leu Val Leu
245 250 255

<220>

<223> Description of Artificial Sequence: nucleic acid
encoding recombinant fusion protein

<400> 127

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atgggggtgt ctacgggtgac agctgccagg atcctaaaag ggcagaagaa ggacaaactg 240
gggcctgaga taccctgggc catggaccgc tccccatatg tggctctgtc caagacatac 300
aatgtagaca aacatgtgcc agacagtggg gccacagcca cggcctacct gtgcgggggtc 360
aagggcaact tccagaccat tggcttgagt gcagccgccc gctttaacca gtgcaacacg 420
acacgcccga acgaggtcat ctccgtgatg aatcgggcca agaaagcagg gaagtcagtg 480
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gacgccgcgc acccaggtaa ctatgaagtt gaattccgaa gagcactcta cgtagagggt 1560
gaaagaggat tcttctacac tccaaaggca ctctacctcg tagagggtga aagaggattc 1620
ttctacacta gtctcatgac catagcctat gtcattggtg ccatctgcgc cctcttcatg 1680
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<210> 128

<211> 575

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
fusion protein sequence

<400> 128

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  20                      25                      30

Ala Ala Glu Ala Leu Gly Ala Ala Lys Lys Leu Gln Pro Ala Gln Thr
  35                      40                      45

Ala Ala Lys Asn Leu Ile Ile Phe Leu Gly Asp Gly Met Gly Val Ser
  50                      55                      60

Thr Val Thr Ala Ala Arg Ile Leu Lys Gly Gln Lys Lys Asp Lys Leu
  65                      70                      75                      80

Gly Pro Glu Ile Pro Leu Ala Met Asp Arg Phe Pro Tyr Val Ala Leu
  85                      90                      95

Ser Lys Thr Tyr Asn Val Asp Lys His Val Pro Asp Ser Gly Ala Thr

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100					105					110					
Ala	Thr	Ala	Tyr	Leu	Cys	Gly	Val	Lys	Gly	Asn	Phe	Gln	Thr	Ile	Gly
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Leu	Ser	Ala	Ala	Ala	Arg	Phe	Asn	Gln	Cys	Asn	Thr	Thr	Arg	Gly	Asn
	130					135					140				
Glu	Val	Ile	Ser	Val	Met	Asn	Arg	Ala	Lys	Lys	Ala	Gly	Lys	Ser	Val
145					150					155					160
Gly	Val	Val	Thr	Thr	Thr	Arg	Val	Gln	His	Ala	Ser	Pro	Ala	Gly	Thr
				165					170					175	
Tyr	Ala	His	Thr	Val	Asn	Arg	Asn	Trp	Tyr	Ser	Asp	Ala	Asp	Val	Pro
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		195					200					205			
Ser	Asn	Met	Asp	Ile	Asp	Val	Ile	Leu	Gly	Gly	Gly	Arg	Lys	Tyr	Met
	210					215					220				
Phe	Pro	Met	Gly	Thr	Pro	Asp	Pro	Glu	Tyr	Pro	Asp	Asp	Tyr	Ser	Gln
225					230					235					240
Gly	Gly	Thr	Arg	Leu	Asp	Gly	Lys	Asn	Leu	Val	Gln	Glu	Trp	Leu	Ala
				245					250					255	
Lys	Arg	Gln	Gly	Ala	Arg	Tyr	Val	Trp	Asn	Arg	Thr	Glu	Leu	Met	Gln
			260					265					270		
Ala	Ser	Leu	Asp	Pro	Ser	Val	Thr	His	Leu	Met	Gly	Leu	Phe	Glu	Pro
		275					280					285			
Gly	Asp	Met	Lys	Tyr	Glu	Ile	His	Arg	Asp	Ser	Thr	Leu	Asp	Pro	Ser
	290					295					300				
Leu	Met	Glu	Met	Thr	Glu	Ala	Ala	Leu	Arg	Leu	Leu	Ser	Arg	Asn	Pro
305					310					315					320
Arg	Gly	Phe	Phe	Leu	Phe	Val	Glu	Gly	Gly	Arg	Ile	Asp	His	Gly	His
				325					330					335	
His	Glu	Ser	Arg	Ala	Tyr	Arg	Ala	Leu	Thr	Glu	Thr	Ile	Met	Phe	Asp
			340					345					350		
Asp	Ala	Ile	Glu	Arg	Ala	Gly	Gln	Leu	Thr	Ser	Glu	Glu	Asp	Thr	Leu
		355					360					365			
Ser	Leu	Val	Thr	Ala	Asp	His	Ser	His	Val	Phe	Ser	Phe	Gly	Gly	Tyr
	370					375					380				
Pro	Leu	Arg	Gly	Ser	Ser	Ile	Phe	Gly	Leu	Ala	Pro	Gly	Lys	Ala	Arg
385					390					395					400
Asp	Arg	Lys	Ala	Tyr	Thr	Val	Leu	Leu	Tyr	Gly	Asn	Gly	Pro	Gly	Tyr
				405					410					415	
Val	Leu	Lys	Asp	Gly	Ala	Arg	Pro	Asp	Val	Thr	Glu	Ser	Glu	Ser	Gly
			420					425					430		

Ser Pro Glu Tyr Arg Gln Gln Ser Ala Val Pro Leu Asp Glu Glu Thr
 435 440 445
 His Ala Gly Glu Asp Val Ala Val Phe Ala Arg Gly Pro Gln Ala His
 450 455 460
 Leu Val His Gly Val Gln Glu Gln Thr Phe Ile Ala His Val Met Ala
 465 470 475 480
 Phe Ala Ala Cys Leu Glu Pro Tyr Thr Ala Cys Asp Leu Ala Pro Pro
 485 490 495
 Ala Gly Thr Thr Asp Ala Ala His Pro Gly Asn Tyr Glu Val Glu Pro
 500 505 510
 Arg Arg Ala Leu Tyr Val Glu Gly Glu Arg Gly Phe Phe Tyr Thr Pro
 515 520 525
 Lys Ala Leu Tyr Leu Val Glu Gly Glu Arg Gly Phe Phe Tyr Thr Ser
 530 535 540
 Leu Met Thr Ile Ala Tyr Val Met Ala Ala Ile Cys Ala Leu Phe Met
 545 550 555 560
 Leu Pro Leu Cys Leu Met Val Asp Tyr Lys Asp Asp Asp Asp Lys
 565 570 575

<210> 129
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 peptide sequence

<400> 129
 Lys Met Asp Ala Glu
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<210> 130
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
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 peptide sequence

<400> 130
 Gly Arg Arg Gly Ser
 1 5

<210> 131
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic

peptide sequence

<400> 131

Val Glu Ala Asn Tyr Glu Val Glu Gly Glu
1 5 10

<210> 132

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 132

Val Glu Ala Asn Tyr Ala Val Glu Gly Glu
1 5 10

<210> 133

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 133

Lys Thr Ile Asn Leu Glu Val Glu Pro Ser
1 5 10

<210> 134

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>

<221> MOD_RES

<222> (5)

<223> Nle

<400> 134

Lys Thr Ile Asn Xaa Glu Val Glu Pro Ser
1 5 10

<210> 135

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD_RES

<222> (5)

<223> Nle

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 135

Lys Thr Ile Asn Xaa Glu Val Asp Pro Ser
1 5 10

<210> 136

<211> 10

<212> PRT

<213> Artificial Sequence

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<223> Nle

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 136

Lys Thr Ile Asn Xaa Asp Val Asp Pro Ser
1 5 10

<210> 137

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 137

Lys Thr Ile Ser Leu Asp Val Glu Pro Ser
1 5 10

<210> 138

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 138

Lys Thr Ile Ser Leu Asp Val Asp Pro Ser
1 5 10

<210> 139

<211> 4

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 139
Lys Met Asp Ala
1

<210> 140
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 140
Ser Tyr Glu Val
1

<210> 141
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 141
Ser Glu Val Ser Tyr Glu Val Glu Phe Arg
1 5 10

<210> 142
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 142
Asn Leu Asp Ala
1

<210> 143
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 143
Ser Glu Val Ser Tyr Asp Ala Glu Phe Arg
1 5 10

<210> 144
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 144
Ser Glu Val Ser Tyr Glu Ala Glu Phe Arg
1 5 10

<210> 145
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 145
Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser
1 5 10 15
Glu Val Ser Tyr Glu Val Glu Phe Arg
20 25

<210> 146
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 146
Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Val Ser Tyr Glu
1 5 10 15
Val Glu Phe Arg
20

<210> 147
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 147
Lys Thr Glu Glu Ile Ser Glu Val Ser Tyr Glu Val Glu Phe Arg
1 5 10 15

<210> 148
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 148
Thr Glu Val Ser Tyr Glu Val Glu Phe Arg
1 5 10

<210> 149
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 149
Ser Glu Val Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 150
<211> 10
<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 150
Thr Glu Val Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 151
<211> 10
<212> PRT
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<220>
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peptide sequence

<400> 151
Thr Glu Ile Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 152
<211> 10
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic

peptide sequence

<400> 152

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg
1 5 10

<210> 153

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 153

Ser Glu Ile Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 154

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> SITE

<222> (11)

<223> Xaa=tryptophan

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 154

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
1 5 10

<210> 155

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<221> SITE

<222> (16)

<223> Xaa=tryptophan

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 155

Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa
1 5 10 15

Lys Lys

<210> 156

<211> 23

<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (21)
<223> Xaa=tryptophan

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 156
Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val
1 5 10 15

Glu Phe Arg Xaa Lys Lys
20

<210> 157
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<220>
<221> SITE
<222> (26)
<223> Xaa=tryptophan

<400> 157
Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser
1 5 10 15

Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 158
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (11)
<223> Xaa=tryptophan

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 158
Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
1 5 10

<210> 159
<211> 18

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

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<223> Xaa=tryptophan

<400> 159
Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg
1 5 10 15

Xaa Lys Lys

<210> 160
<211> 23
<212> PRT
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<220>
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<223> Xaa=tryptophan

<220>
<223> Description of Artificial Sequence: synthetic
peptide

<400> 160
Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr
1 5 10 15

Glu Val Glu Phe Arg Xaa Lys Lys
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<210> 161
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
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<223> Xaa=tryptophan

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 161
Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile
1 5 10 15

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 162
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (11)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 162
Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
1 5 10

<210> 163
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (16)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 163
Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa
1 5 10 15

Lys Lys

<210> 164
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (21)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 164
Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu
1 5 10 15

Val Glu Phe Arg Xaa Lys Lys
20

<210> 165
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (26)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 165
Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser
1 5 10 15

Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 166
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (11)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 166
Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
1 5 10

<210> 167
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<222> (16)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 167
Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg
1 5 10 15

Xaa Lys Lys

<210> 168
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<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 168
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1 5 10 15
Glu Val Glu Phe Arg Xaa Lys Lys
20

<210> 169
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<221> SITE
<222> (26)
<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 169
Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile
1 5 10 15
Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 170
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 170
Ser Glu Val Asn Tyr Glu Val Glu Phe Arg
1 5 10

<210> 171
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 primer for site-directed mutagenesis of APP

<400> 171
 gagatctctg aaattagtta tgaagtagaa ttccgacatg actcagg 47

<210> 172
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 primer for site-directed mutagenesis of APP

<400> 172
 tgagtcatgt cggaattcta cttcataact aatttcagag atctcctc 48

<210> 173
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 primer for site-directed mutagenesis of APP

<400> 173
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<210> 174
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 primer for site-directed mutagenesis of APP

<400> 174
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<210> 175
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 primer for site-directed mutagenesis of APP

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<210> 176
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 primer for site-directed mutagenesis of APP

<400> 176
tgagtcatgt cggaattctg cttcataact aatttcagag atctcctc

48

<210> 177
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 177
Val Ser Tyr Glu Val
1 5

<210> 178
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 178
Val Ser Tyr Asp Ala
1 5

<210> 179
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 179
Ile Ser Tyr Glu Val
1 5

<210> 180
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 180
Val Lys Met Asp Ala
1 5

<210> 181
<211> 47
<212> DNA
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<220>
<223> Description of Artificial Sequence: synthetic
primer for generating mutant construct named
MBPC125-SYEV

<400> 181
gacatctctg aagtgagtta ttaggcagaa ttccgacatg actcagg

47

<210> 182
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
primer for generating mutant construct named
MBPC125-SYEV

<400> 182
tgagtcattgt cggaattctg cctaataact cacttcagag atctcctc

48

<210> 183
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 183
Lys Lys Ser Tyr Glu Val
1 5

<210> 184
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 184
Val Glu Ala Asn Tyr Glu Val Glu Gly Glu
1 5 10

<210> 185
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 185
Val Glu Ala Asn Tyr Ala Val Glu Gly Glu
1 5 10

<210> 186
<211> 8
<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 186
Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 187
<211> 4
<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 187
Ser Tyr Glu Ala
1

<210> 188
<211> 4
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 188
Ser Tyr Ala Val
1

<210> 189
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 189
Val Ser Tyr Glu Ala
1 5

<210> 190
<211> 13
<212> PRT
<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<400> 190

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Trp Lys Lys
1 5 10

<210> 191

<211> 23

<212> PRT

<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<400> 191

Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu
1 5 10 15

Val Glu Phe Arg Trp Lys Lys
20

<210> 192

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (1)..(1)

<223> amino acid at position 1 is biotinylated

<220>

<221> SITE

<222> (14)..(14)

<223> cys at position 14 is derivatized with an oregon green

<400> 192

Lys Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Lys Lys
1 5 10 15

<210> 193

<211> 22

<212> PRT

<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (1)..(1)

<223> amino acid at position 1 is biotinylated

<220>

<221> SITE

<222> (21)..(21)

<223> cys at position 21 is derivatized with an oregon green

<400> 193

Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu
1 5 10 15

Val Glu Phe Arg Lys Lys
20

<210> 194

<211> 6806

<212> DNA

<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic DNA sequence

<400> 194

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aacaactggc gggcaaacag tcgttgctga ttggcggtgc cacctccagt ctggccctgc	300
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<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<220>

<221> MOD_RES

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<223> ACETYLATION (MCA)

<220>

<221> SITE

<222> (11)..(11)

<223> 2,4-dinitrophenyl group after the Lys at position 11

<400> 195

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<210> 196

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (4)..(4)

<223> amino acid at position 4 has been derivatized with a statine

<400> 196

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<210> 197

<211> 10

<212> PRT

<213> synthetic peptide sequence

<220>

<221> SITE

<222> (4)..(4)

<223> amino acid at position 4 has been derivatized with a statine

<220>

<221> SITE

<222> (10)..(10)

<223> amino acid at position 10 has been derivatized with Bodipy FL

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<210> 198

<211> 2043

<212> DNA

<213> Mus musculus

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